

Notice of Allowability

Application No.

10/723,576

Examiner

Dalena Tran

Applicant(s)

VUKOVICH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/26/03.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 11/26/03 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/23/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Thomas G. Black
THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3 & 06

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

1. The prior art submitted on 4/23/04 has been considered.

This communication is an Examiner's reasons for allowance in response to application filed on 11/26/03, assigned serial 10/723576 and title "Method of controlling a dual clutch transmission".

2. The following is the Examiner's statement of reasons for the indication of allowable subject matter:

After carefully reviewing the application and the additional search of all the possible areas relevant to the present application, a set of related prior art references has been found, but those prior art references are not deemed strong to make the application unpatentable. Thus, it is found that the application is now in condition for allowance.

As per claim 1, the prior art of record does not disclose a method of controlling the timing of the shift events of a dual clutch transmission, method including the steps: determining an output speed modification value for each possible shift event; determining a modified shift point output speed for each possible shift event by summing the determined output speed modification value with a predetermined shift pattern output speed; and commanding the shift when the current output speed reaches the predetermined modified shift point output speed. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 7, the prior art of record does not disclose a method of controlling the timing of the shift events of a dual clutch transmission when the transmission is shifting to a higher gear, method including the steps: determining the time required to complete a

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synchronization to a next higher gear; determining the total time required to complete a shift to the next higher gear by summing the determined time required to perform a clutch changeover from current gear to the next higher gear with the determined time required to complete synchronization of next higher gear; continuously re-determining an output speed modification value based on the determined acceleration and the determined total time required to complete a shift to the next higher gear; determining the modified shift point output speed by summing the determined output speed modification value with a predetermined shift pattern output speed. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

As per claim 14, the prior art of record does not disclose a method of controlling the timing of the shift events of a dual clutch transmission when the transmission is shifting to a lower gear, method including the steps: determining the time required to complete a synchronization to a next lower gear; determining the total time required to complete a shift to the next lower gear by summing the determined time required to perform a clutch changeover from current gear to the next lower gear with the determined time required to complete synchronization of next lower gear; continuously re-determining an output speed modification value based on the determined acceleration and the determined total time required to complete a shift to the next lower gear; determining the modified shift point output speed by summing the determined output speed modification value with a predetermined shift pattern output speed. This limitation in combination with the other elements in the claim was not shown or suggested by the prior art.

Also, as per claims 12 and 19, the prior art of record does not disclose wherein the step of determining the time required to complete the synchronization to the next higher and to the next lower gear further includes steps: measuring the time required to complete a particular gear synchronization when a gear change is made and initially storing the value in a database; measuring the time required to complete the same synchronization in the transmission is measured the next time the same synchronization is made; averaging the newly measured synchronization time with the initially stored synchronization time to determine an average synchronization time; and referencing the latest stored average synchronization time in the database to identify the value of the synchronization time when the value is required by the higher level method steps thereby providing a synchronization time that is historical and adaptive. This limitation in combination with the other elements in the claims were not shown or suggested by the prior art.

Claims 1-20, are allowable over the prior art of record.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3600

/dt

January 31, 2005

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with McGlynn, Gerald on 1/26/05.

The application has been amended as follows:

Claim 12, line 1, change: "12" to --7--

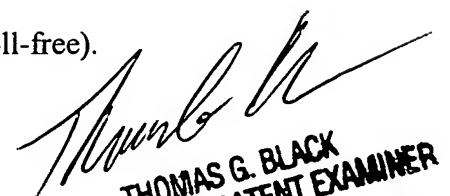
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January 31, 2005


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